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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,402	03/29/2004	DahShiarn Chiao		3200

David O'Neill
786 Townsend Avenue
New Haven, CT 06512

7590 04/24/2009

EXAMINER	
BOECKMANN, JASON J	

ART UNIT	PAPER NUMBER
3752	

MAIL DATE	DELIVERY MODE
04/24/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/817,402

Applicant(s)

CHIAO ET AL.

Examiner

Jason J. Boeckmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2009.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-22 is/are pending in the application.
4a) Of the above claim(s) 20 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 17-19, 21 and 22 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 30 July 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SF-08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Claim 20 appears to be directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Due to the reasons set forth in the restriction requirement mailed on 10/18/2007, and the applicant's response with an election of group III, claims 17-22, it is noted that newly amended claim reads on invention II, claims 10-16 which was withdrawn in the applicants response of 1/18/2008.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 20 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

The claim identifier for claim 20 should be changed to (Withdrawn).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17-19, 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "in proximity" in claim 17 is a relative term which renders the claim indefinite. The term "in proximity" is not defined by the claim, the specification does not

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provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is not clear what the applicant means by the forward extremity of the ring being brought in "proximity" to an earthed target. Is it brought within 10 feet, 10 inches or 10 millimeters, or a different distance of the target?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17-19, 21 and 22 are rejected, as best as understood, under 35 U.S.C. 102(b) as being anticipated by Ohno et al. (3,887,928).

Ohno et al. shows an electrostatic spraying device comprising: a high voltage generator (7) having a high voltage output; at least one dispensing nozzle (the exit opening in tube 3), a housing (2) enclosing at least one reservoir, a tube (3) connecting the at least one dispensing nozzle and the at least one reservoir, the tube configured to convey the materials to be sprayed from the at least one reservoir to the at least one dispensing nozzle, means coupling (the wires) the high voltage output of the high voltage generator to the materials so that the voltage is conducted through the materials to the materials present at the at least one dispensing nozzle, at least one ring (9)

surrounding the at least one dispensing nozzle, the at least one ring coupled to the high voltage generator (via terminal 10), the at least one ring configured to develop a high voltage of the same polarity (column 4, lines 42-3) as that applied to the materials being sprayed and to generate an electric field in the vicinity of the at least one dispensing nozzle; wherein the development of a high voltage y at least one ring of the same polarity as that applied to the materials being sprayed and the generation of an electric field in the vicinity of the at least one dispensing nozzle by the at least one ring during spraying operations causes the electrostatic spraying device to impart an electrostatic charge to the materials issuing from the at least one nozzle and to focus the material being sprayed when a forward extremity (the part of the ring that is closest to the earthed target) of the ring is brought in proximity to an earthed target to be sprayed.

It is noted that since the ring 9 is charged with the same polarity as the material being issued from the nozzle is charged, the ring will inherently repel the material issuing from the nozzle and focus it to a central point, in the same way as the present invention does.

Regarding claim 18, the at least one dispensing nozzle is mounted in fixed relation to the and the at least one ring is in the form of an annular cable mounted on the housing (figure 32) in substantially concentric relation with the at least one dispensing nozzle.

Regarding claim 19, the means for supplying the materials to the nozzle passively is gravity, depending on the orientation of the device.

Regarding claim 21, the electrostatic spray device is configured to generate an iontophoresis effect to enhance transport through skin when the forward extremity of the nozzle is within a distance of 2 cm from the skin of an earthed target. It is noted that since the Ohno et al. reference discloses the exact structure as that of the present invention, the Ohno et al. reference will generate an iontophoresis effect when the nozzle is within 2 cm from the target, in the same way as the present invention does.

Regarding claim 22, the at least one ring is made of an electrically semi-insulating material, and since it is charged with the same voltage as the material to be dispensed, it forms a potential in a location forward of the nozzle, just as the present invention does.

Response to Arguments

Applicant's arguments concerning the Ohno reference, filed 3/31/2009 have been fully considered but they are not persuasive.

Regarding the applicant's response concerning the Ohno reference, the applicant argues that the Ohno reference does not teach a device that performs the function of imparting an electrostatic charge to the materials issuing from the at least one nozzle and to focus the material being sprayed when a forward extremity of the ring is brought in proximity to an earthed target. However, it is noted that since The Ohno reference includes all the structural elements of claim 17, and the applicant does not claim any structural features that cause the electrostatic spraying device to focus the material being sprayed when a forward extremity of the ring is brought in proximity to an earthed

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target, it is the examiners opinion that the Ohno reference is fully capable of performing the function of focusing the material being sprayed when a forward extremity of the ring is brought in proximity to an earthed target. Additionally, a nozzle that sprays a material inherently focuses the sprayed material and that focus changes as the distance from the nozzle to the surface being sprayed changes.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason J. Boeckmann whose telephone number is (571)272-2708. The examiner can normally be reached on 8:00- 5:00, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason J Boeckmann/
Examiner, Art Unit 3752
4/20/2009

/Len Tran/
Supervisory Patent Examiner, Art Unit 3752